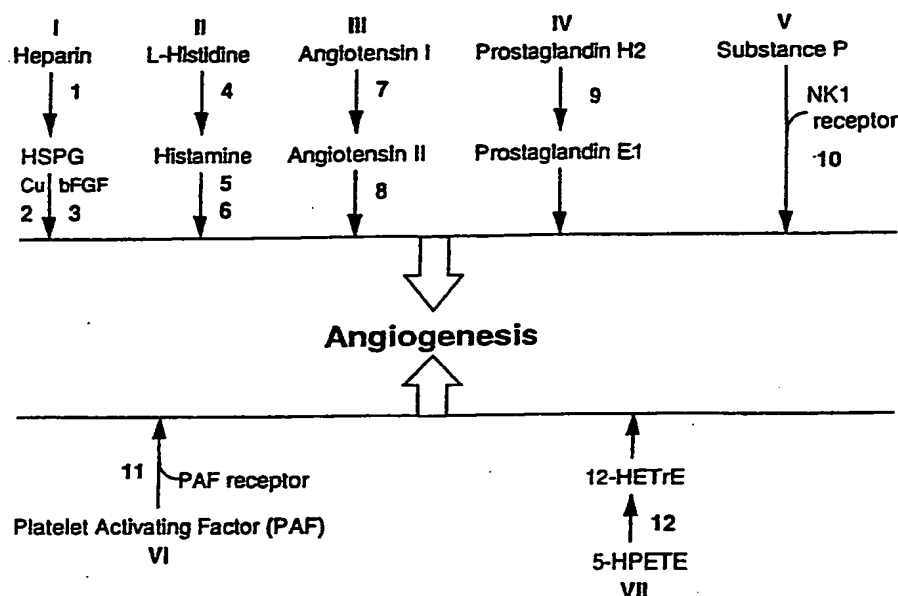




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(22) International Filing Date: 27 February 1996 (27.02.96)			
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(60) Parent Application or Grant (63) Related by Continuation US 08/396,446 (CON) Filed on 28 February 1995 (28.02.95)		Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	
(71) Applicant (for all designated States except US): HANDELMAN, Joseph, H. [US/US]; 26 West 61st Street, New York, NY 10023 (US).		(88) Date of publication of the international search report: 21 November 1996 (21.11.96)	
(72) Inventors; and (75) Inventors/Applicants (for US only): AHLUWALIA, Gurpreet, S. [US/US]; 8632 Stable View Court, Gaithersburg, MD 20879 (US). STYCZYNSKI, Peter [US/US]; 3709 Roop Road, New Windsor, MD 21776 (US). SHANDER, Douglas [US/US]; 16112 Howard Landing Drive, Gaithersburg, MD 20878 (US).			

(54) Title: USE OF ANGIOGENESIS SUPPRESSORS FOR INHIBITING HAIR GROWTH



(57) Abstract

A method of inhibiting hair growth in a mammal includes applying, to an area of skin from which reduced hair growth is desired, a dermatologically acceptable composition containing a non-steroidal suppressor of angiogenesis.

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INTERNATIONAL SEARCH REPORT

 Int: onal Application No
 PCT/US 96/02790

 A. CLASSIFICATION OF SUBJECT MATTER
 IPC 6 A61K7/06 A61K7/48

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

 Minimum documentation searched (classification system followed by classification symbols)
 IPC 6 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CARCINOGENESIS, vol. 15, no. 12, 1994, pages 2739-2745, XP000577801 A. G. USHMOROV ET AL : "Effects of complete and incomplete tumor promoters on hair growth, angiogenesis, and tenascin expression in the skin of NMRI mice" see page 2743, left-hand column, line 28 - line 39 ---	1,75,77, 80,81
X	WO,A,94 04143 (ALCON LABORATORIES) 3 March 1994 see page 10, line 12 - page 11, line 11 ---	1,75,77, 80,81
Y	WO,A,90 12577 (UPJOHN COMPANY) 1 November 1990 see claims 1,10 ---	1,2,33, 34,75, 77,80,81

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

10 October 1996

Date of mailing of the international search report

17. 10. 96

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Voyiazoglou, D

INTERNATIONAL SEARCH REPORT

Int. l. Application No

PCT/US 96/02790

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	CHEMICAL ABSTRACTS, vol. 120, no. 25, 20 June 1994 Columbus, Ohio, US; abstract no. 315349w, N. M. NGUYEN ET AL: "Pentosan inhibits angiogenesis in vitro and suppresses prostate tumor growth in vivo" page 39; XP002015644 see abstract & ANTICANCER RESEARCH, vol. 13, no. 6a, 1993, pages 2143-2147,	1,2,33, 34,75, 77,80,81
X	--- CHEMICAL ABSTRACTS, vol. 99, no. 11, 12 September 1983 Columbus, Ohio, US; abstract no. 82778r, N. ARIAS ET AL: "Effects of cyproterone and tamoxifen upon the hair waves in mice" page 101; XP002015645 see abstract & ACTA PHYSIOL. LATINOAM., vol. 32, no. 4, 1982, pages 261-266,	1,74,75, 77,80,81
X	--- WO,A,94 27563 (HANDELMAN) 8 December 1994 see claims 1,2,15	1,2,30, 32,75, 77,80,81
A	--- ARCHIVES OF DERMATOLOGICAL RESEARCH, vol. 277, no. 1, 1985, pages 77-78, XP000577723 S. MAJEWSKI ET AL: "Relationship between the hair growth cycle and the intensity of lymphocyte-induced angiogenesis in mouse skin" see page 78, right-hand column	1,75,77, 80,81
A	--- BRITISH JOURNAL OF DERMATOLOGY, vol. 124, no. 5, 1991, pages 415-422, XP000600557 R. PAUS: "Hair growth inhibition by heparin in mice: a model system for studying the modulation of epithelial cell growth by glucosaminoglycans?" see page 415	1,2,33, 75,77, 80,81
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INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 96/02790

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>THE JOURNAL OF INVESTIGATIVE DERMATOLOGY, vol. 96, no. 2, February 1991, pages 191-195, XP000600560 G. E. WESTGATE ET AL : "Distribution of proteoglycans during the hair growth cycle in human skin" see page 191</p> <p style="text-align: center;">---</p>	<p>1,2,33, 75,77, 80,81</p>
A	<p>WO,A,94 27586 (HANDELMAN) 8 December 1994 see claims 1,81</p> <p style="text-align: center;">-----</p>	<p>1,75,77, 80,81</p>

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 96/02790

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

Please see annex

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/SA/210

As the drafting of the claims is not clear and concise (Art.6, PCT) and encompasses such an enormous amount of products, a complete search is not possible on economic grounds (See Art. 17(2) (a) (ii), PCT). Guided by the spirit of the application and the inventive concept as disclosed in the descriptive part of the present application the search has been based on the examples.

Claims searched completely: 31,32,34,35,37,38,40,43,47-50,52,53,65
Claims searched incompletely: 1-30,33,36,39,42,46,51,54,64,66,72,74-82
Claims not searched: 41,44-45,55-63,67-71,73

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 96/02790

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO-A-9404143	03-03-94	AU-A- 5018893 US-A- 5464866	15-03-94 07-11-95
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WO-A-9427563	08-12-94	AU-A- 6833194 EP-A- 0700282 ZA-A- 9403612	20-12-94 13-03-96 25-01-95
WO-A-9427586	08-12-94	AU-A- 7018194 CA-A- 2163535 EP-A- 0700288 ZA-A- 9403611	20-12-94 08-12-94 13-03-96 25-01-95